PATENT CLAIMS

1. A spray can (10) made of metal, with a lower can portion (11) and an upper can portion (13),
the lower can portion (11) containing a bottom (12) and being of almost cylindrical configuration, so that a cross section of the spray can (10) in this portion is circular, and
the upper can portion (13) being provided with a shoulder area (14) and with a can opening (15) with a collar (16) for an insertable spraying system, characterized in that
the upper can portion (13) additionally contains a shaping area (17), which may also extend above the shoulder area (14), and
a cross section of the shaping area (17) of the spray can (10) is configured differently than the almost circular cross section of the lower can portion (11).

2. The spray can (10) as claimed in claim 1, characterized in that, a substantially constant wall thickness exists about the circumference of the cross section (radially) and along the height (axially) of the spray can (10).

3. The spray can (10) as claimed in claim 1 or 2, characterized in that the circumference of the circular cross section from the lower can portion (11) is configured so as to be equal in terms of size to the circumference of the differently configured cross section in the shaping area (17).

4. The spray can (10) as claimed in one of claims 1 through 3, characterized in that the surface of the differently configured cross section in the shaping area (17) is oval or ellipsoid.

5. The spray can (10) as claimed in one of claims 1 through 3, characterized in that the surface of the differently configured cross section in the shaping area (17) approximates to a triangle or rectangle.

6. The spray can (10) as claimed in one of claims 1 through 5, characterized in that the spray can (10) has a standardized can opening (15) in which standardized spraying systems can be inserted.

7. The spray can (10) as claimed in one of claims 1 through 6, characterized in that the spray can (10) with inserted spraying system is suitable for a filling pressure of between 5 and 35 bar.

8. The spray can (10) as claimed in claim 7, characterized in that the filling pressure of the spray can (10) is between 10 and 20 bar.

9. The spray can (10) as claimed in claim 7, characterized in that the filling pressure of the spray can (10) is between 12 and 18 bar.

10. The spray can (10) as claimed in one of claims 1 through 9, characterized in that the metal of the spray can (10) is tinplate or aluminum.

11. A device (20) for manufacturing the spray can (10) as claimed in one of claims 1 through 10, containing one or more dies (24) for producing the upper can portion (13) with the shoulder area (14) and with the can opening (15) with collar (16) from an almost cylindrical hollow body (25a) with bottom (12), the shape of the upper can portion (13) being determined by the contours (30) of the dies (24),
characterized in that
the contours (30) of the dies (24) are configured in such a way that in addition the differently configured shaping area (17) of the spray can (10)

can also be formed,
the circumferences (31) of the contours (30) not being circular at different cross sections in the shaping area (17) of a die (24).

12. The device (20) as claimed in claim 11, characterized in that, at different cross sections in the shaping area (17) of a die (24), the contours (30) have circumferences (31) of uniform length.

13. A method for manufacturing the spray can (10) as claimed in one of claims 1 through 10 and comprising at least the following production operations, which themselves consist of one or more production steps:
    a) producing an almost cylindrical hollow body (25a) with bottom (12),
    b) painting the inside of the cylindrical hollow body (25a),
    c) printing or painting the cylindrical hollow body (25a) on the outside,
    d) cutting off the upper edge of the cylindrical hollow body (25a) for exact forming of the collar (16) of the can opening (15),
    e) producing the upper can portion (13) with the shoulder area (14) and with the can opening (15) with collar (16),

    characterized in that
    in the production operation e) for the upper can portion (13) with the shoulder area (14) and with the can opening (15) with collar (16), the device (20) as claimed in claim 11 or 12 is used,
    by which means the differently configured shaping area (17) of the upper can portion (13) can also be formed.

14. The method as claimed in claim 13, characterized in that the production operation a) for producing an almost cylindrical hollow body (25a) with bottom (12) is achieved by deep-drawing.

15. The method as claimed in claim 13 or 14, characterized in that the production operation e) for creating the upper can portion (13) with the shaping area (17) is the last production operation in the process for manufacturing unfilled spray cans (10).